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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,765	10/22/2003	David Furneaux	07703-398001	5373
26211	7590	06/16/2006		
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER BEAUCHAINE, MARK J	
			ART UNIT 3653	PAPER NUMBER

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,765

Applicant(s)

FURNEAUX, DAVID

Examiner

Mark J. Beauchaine

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/22/03&1/23/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The term "type" in line 3 of the claim referring to a coin store is ambiguous since it is unclear what qualities of the coin store are being referred to.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3653

Claims 1-3, 6-15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Number 5,821,424 by Rodriguez (hereinafter "Rodriguez").

Regarding claims 1 and 14, Rodriguez discloses a method for analyzing filling material 24 within container 18. Said method incorporates speaker unit 36 that generates sound waves to test container 18. The "specific amount of vibration experienced by container 18 will depend [on] the amount and type of fill material 24 within [] the container" (column 9, lines 24-30).

The vibrations of container 18 produced by said sound waves are detected by vibration sensing means 50. The sound generation and vibration detecting of Rodriguez read on the Applicant's steps of generating an acoustic pulse and a first waveform, respectively.

Said detected vibration is then "compared with a [] vibration profile of a reference (control) container having known fill characteristics" (column 14, lines 4-7). This comparison reads on the Applicant's step of comparing first and second waveforms.

Furthermore, the material analysis of data processing means 78 reads on the Applicant's step of calculating the coin number.

Although Rodriguez does not specifically disclose a coin container the "filling material may involve many different compositions" (column 7, lines 8-11) and "many different types of containers and filling materials (both solids and liquids) in a wide variety of technical fields" can be analyzed (column 7, lines 21-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the

Art Unit: 3653

process of Rodriguez to analyze a coin container to determine the quantity of coins therein.

Regarding claim 18, the apparatus of Rodriguez incorporates test container 18 that reads on the Applicant's coin container. Rodriguez further discloses computer system 80 that reads on the Applicant's storing, identifying and measuring means.

The "vibration profile of a reference (control) container having known fill characteristics" (column 14, lines 4-7) reads on the Applicant's stored reference data. Vibrations of test container 18 generated by speaker unit 36 read on the Applicant's derived store measurement data.

Although Rodriguez does not specifically disclose a coin container the "filling material may involve many different compositions" (column 7, lines 8-11) and "many different types of containers and filling materials (both solids and liquids) in a wide variety of technical fields" can be analyzed (column 7, lines 21-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process of Rodriguez to analyze a coin container to determine the quantity of coins therein.

Regarding claims 2 and 15, the process of and means for calibrating waveforms for subsequent comparison are well known in the art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such calibration into method and apparatus of Rodriguez to provide reference data suitable for comparison.

Regarding claims 8-11, the step of scaling a reference signal to a comparison signal is inherent in the analysis of acoustic signals that incorporate the comparison of measured signals with reference signals.

Regarding claim 12, the step of normalizing the amplitude of a reference signal is inherent in the analysis of acoustic signals that incorporate the comparison of measured signals with reference signals.

Regarding claim 13, the step of subtracting one signal from another is inherent in the analysis of acoustic signals that incorporate the comparison of measured signals with reference signals.

Regarding claim 19, the use of a plurality of containers and identifying means in a coin handling apparatus is an obvious modification of Rodriguez. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate additional containers and identifying means to increase the capacity of the apparatus.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez as applied to claim 14 above, and further in view of Patent Number 5,505,090 by Webster (hereinafter "Webster"). Although Rodriguez fails to disclose a spark-generated pulse the use of such sound generating means is well known in the art. Webster teaches an inspection apparatus that produces a "high energy acoustic wave or pulse" (column 6, lines 28 and 29) that is generated by a spark discharged from a capacitor (column 6, lines 16-21). It would have been obvious to one of ordinary skill in

Art Unit: 3653

the art at the time the invention was made to incorporate the step of pulse generating of Webster into the coin identifying method of Rodriguez to provide an effective means of producing an acoustic signal.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez as applied to claim 18 above, and further in view of Patent Number 4,596,144 by Panton et al (hereinafter "Panton"). Although Rodriguez fails to disclose a thermometer the use of temperature sensing apparatus in acoustic apparatus is well known in the art. Panton teaches an acoustic ranging system that incorporates a temperature sensor for calibrating acoustic signals (column 5, lines 27-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the temperature sensor of Panton into the analyzer of Rodriguez to provide a signal calibration means.

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Claims 1-16 and 18-20 are currently pending the instant application. Claims 17 and 21 have been canceled by the Applicant.

Art Unit: 3653

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Patent Number US 6,497,085 B2 by Fukumoto et al because of its comparing means 125.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark J. Beauchaine whose telephone number is (571)272-6934. The examiner can normally be reached on 8:00AM through 5:00PM Mondays through Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571)272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mjb



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